

PS8281.01 FPI WORK MEASUREMENT PROGRAM



# Program Statement

OPI: FPI  
NUMBER: 8281.01  
DATE: June 1, 1995  
SUBJECT: FPI Work Measurement Program

1. PURPOSE AND SCOPE. To establish and maintain a work measurement program at all Federal Prison Industries (FPI) factories. Production standards provide the basic data for many components of production management such as: capacity planning, determination of direct labor costs, shop floor control, factory loading, item standard routing, line balancing, and methods improvements.

Detailed implementation instructions are contained in the Work Measurement Technical Reference Manual.

2. PROGRAM OBJECTIVES. The expected results of this program are:

a. The measurement of efficiency and utilization will be established by setting labor standards at every factory on all production operations.

b. Direct labor times will be determined for all products FPI manufactures using scientific measurement techniques.

c. Complete and accurate records documenting the development of production standards will be maintained.

d. Factory capacity will be established based on the analysis of objective and quantitative data.

3. DIRECTIVES REFERENCED. None.

4. STANDARDS REFERENCED. None.

5. OVERVIEW. Work measurement is defined as the process of determining a standard time for performance of a task using industrial engineering techniques. Engineered production standards give the manager the assurance that his/her analysis is based on quantitative, reliable, and objective data. Standardization is very important and is used to make manufacturing management decisions.

Standards are used for:

- # Capacity
- # Development of accurate Unit Cost Estimates (UCE)
- # Shop Floor Control
- # Factory loading
- # Item Standard Routing
- # Line balancing
- # Manufacturing methods improvements

6. RESPONSIBILITIES

a. The Manager, Industrial Engineering and Technical Support (IE&TS), Product Support Center (PSC) shall:

(1) Provide technical guidance and oversight to Associate Wardens/Superintendents of Industries (AW/SOIs) as they establish and implement work measurement programs.

(2) Review and approve requests for alternate manufacturing methods.

b. AW/SOIs at each institution shall:

(1) Implement and manage a comprehensive work measurement program in their factory.

(2) Appoint a work measurement coordinator(s).

(3) Ensure work measurement coordinators have formal training in work measurement techniques provided by the PSC.

c. The Factory Manager shall:

(1) Review work measurement documentation and develop method improvements recommendations, forward recommendations through his/her AW/SOI to the Manager, IE&TS, PSC for approval of methods improvements recommendations.

(2) Implement approved manufacturing methods.

d. Work Measurement Coordinators shall:

(1) Set labor standards for all products using approved methods.

(2) Review, update, and maintain work measurement data contained in product files.

7. PRODUCT FILES. Factories shall maintain a product file that contains all work measurement information for products manufactured at the site. Sections are divided and labeled as follows:

- a. Blueprints or specifications.
- b. Routing List of all production operations with standard times (work procedures, diagrams, flow charts) Item Standard Routings.
- c. Equipment. Work center equipment lists with setup times.
- d. Methods. Analyses of all operations using one of the following approved methods:
  - (1) Modular Arrangement of Predetermined Time Standards (MODAPTS);
  - (2) Published industry standards, approved in writing by the Division Manager, PSC;
  - (3) Time and motion studies; and
  - (4) Machine process time.
- e. Labor Requirements. Each file shall contain a summary sheet documenting the total direct labor time required for each operation.
  - (1) A copy of the approved UCE (FPI Form 73). The Manager, Product Costing, PSC must sign the UCE. Factories using SFC will include the indented Bill of Materials.
  - (2) Personal Fatigue and Delay allowance (PF&D) (developed and established for each factory). The AW/SOI must approve and sign the PF&D allowance.
  - (3) Average production runs (lot sizes), move and queue times.
  - (4) Copies of FPI Form 82 for each operation. FPI manufactures many products that are a variation of a base product. A complete product file shall be maintained on the base product with an appendix for the remaining products in the same classification.

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